

## DEVICE AND METHOD FOR STORING A HITCH MOUNTED DEVICE

### BACKGROUND OF THE INVENTION

5           The class III hitch has become an increasingly common accoutrement for SUVs and light trucks. As the class III hitch has increased in popularity, so has the number of devices that are adapted to attach to a class III hitch receiver. Not only trailers, but also motorcycle racks,  
10 bicycle racks, electric lights and little signs for displaying allegiance to a particular sports team have all been designed to mate to a class III hitch receiver.

          A class III hitch receiver has an opening that is adapted to accept a tongue that is square in cross-section,  
15 with a square side length of 5.08 cm (2.0 in). A pair of pin openings matches a transverse opening in the tongue, thereby permitting the tongue to be locked in place with a pin. In this application, any hitch receiver having a similar geometry for receiving a tongue is termed a "class  
20 III type hitch receiver."

          Unfortunately, when a user wishes to remove the attached device from the class III hitch, he may have a difficult time finding a suitable storage location for the device. Moreover, for a bicycle rack, the user would  
25 typically have the problem of storing the rack and also separately storing the bicycle. Afterwards, when the user again wishes to carry his bicycle to a distant spot, he would need to attach the rack to the hitch receiver and load the bicycle onto the rack. This is time consuming.

## SUMMARY OF THE INVENTION

In a first separate aspect, the present invention is a method of storing a rack having a tongue adapted to be inserted into a class III type hitch receiver. The method  
5 uses a static support structure that supports a class III type hitch receiver assembly, which includes a class III type hitch receiver. The tongue of the rack is inserted, into the class III type hitch receiver of the assembly.

In a second separate aspect, the present  
10 invention is a class III type hitch assembly adapted to be attached to a wall, thereby permitting rapid storage of any device that is adapted to be mated to a class III type hitch. The assembly includes a class III type hitch receiver, having a length, and a plate, operatively  
15 supporting the class III hitch receiver and extending in a plane perpendicular to the length of the class III type hitch receiver. The plate defines a set of apertures adapted to accommodate bolts to attach the assembly to a wall.

20 In a third separate aspect, the present invention is a hitch rack retaining device that includes a supporting structure having a mass of less than 300 Kg and a class III type hitch receiver supported by the supporting structure.

The foregoing and other objectives, features and  
25 advantages of the invention will be more readily understood upon consideration of the following detailed description of the preferred embodiment(s), taken in conjunction with the accompanying drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a hitch receiver adapted to be mounted on a wall according to the present invention.

FIG. 2 is a front view of the hitch receiver of  
5 FIG. 1.

FIG. 3 is an isometric view of the hitch receiver of FIG. 1, supporting a bicycle rack.

FIG. 4 is an isometric view of a stand alone hitch receiver, according to the present invention.

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## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

Referring to FIGS 1-3, a preferred embodiment of the present invention is a class III hitch assembly 10,  
15 including a class III hitch receiver 12 rigidly affixed to a plate 14. Plate 14 defines two apertures 16, adapted to accept bolts 18 (FIG. 3) for affixing assembly 10 to a wall.

In a preferred embodiment plate 14 and hitch  
20 receiver 12 are made of 11 gauge steel, which is 0.3 cm (0.12 in) thick. In an additional preferred embodiment plate 14 and hitch receiver 12 are made of 10 gauge steel, which is 0.34 cm (0.135 in) thick. To install, the user should find a stud in the garage wall, drill through the  
25 plaster of the wall into the stud and fix bolts 18 through apertures 16 and into the stud to hold the assembly 10 firmly in place.

Referring to FIG. 3, after assembly 10 has been affixed to a wall 19, which may be a garage wall, it is  
30 ready to accept a device or rack, such as bicycle rack 20 bearing a bicycle 22 and having a tongue 24, adapted to be inserted into a class III hitch receiver. The user is

thereby permitted to quickly and easily store his bicycle, remaining on its class III hitch rack and ready for the next instance in which he wishes to carry the bicycle on his SUV or light truck.

5               Referring to FIG. 4, in an alternative preferred embodiment, a hitch rack retaining device 110, includes a support structure 112, having a mass of less than 300 Kg, thereby distinguishing it from an automobile. A class III type hitch receiver 114 is supported by structure 112 and  
10 is thereby made available for accepting a class III hitch. A set of wheels 116 is provided for moving the hitch rack retaining device 110 from place to place.

              The terms and expressions that have been employed in the foregoing specification are used as terms of  
15 description and not of limitation. There is no intention, in the use of such terms and expressions, of excluding equivalents of the features shown and described or portions thereof, it being recognized that the scope of the invention is defined and limited only by the claims which  
20 follow.